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NOTES ON GEOGRAPHIC DISTRIBUTION

First record of *Cryptopodia angulata* H. Milne Edwards and Lucas, 1841 from Saurashtra coast, Gujarat, India (Decapoda: Brachyura: Parthenopidae)

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ABSTRACT: *Cryptopodia angulata* is reported for the first time from Saurashtra coast of Gujarat state. One adult female was found in trawl catch near Sutrapada village of Saurashtra coast on January, 2012. Although the species is not common in Indian waters, this species has been reported from the south east coast of India. This is the first report from Saurashtra coast.

The state of Gujarat harbors the longest coast line in India which is 1,663 km long. The marine fauna of state is very rich in diversity (Pillai and Patel 1988; Apte 1998; Venkataram 2005). The brachyuran fauna of Gujarat is least studied and except the scattered work on the South Gujarat coast, a few locations on Saurashtra coast and the Gulf of Kachchh by Chhapgar (1957), Chandy (1973) and recently by our group (Pandya and Vachhrajani 2010; Trivedi *et al.* 2012) no specific document on the status of brachyuran crabs is available. The intertidal area of the Saurashtra coast is mostly rocky with patches of sandy and muddy shores. The width of the intertidal area ranges from 50 m to 300 m and apparent habitat zonation is observed which supports different kinds of animal community (Vaghela and Kundu 2012). During the survey of brachyuran fauna of Saurashtra coast one adult female specimen of *Cryptopodia angulata* H. Milne Edwards and Lucas, 1841 was collected in trawl catch. The specimen was preserved in 10% formalin and its taxonomy was confirmed to species level using various references (Sethuramalingam and Ajmal Khan 1991; Chiong and Ng 1998; Jeyabaskaran *et al.* 2000; Ravichandran *et al.* 2010). The study area is not included under any notified or protected regions as well as the species under consideration is not listed/ categorized for protection, and therefore, no permission from any defined authority was required for collection of this species. The specimen was deposited in the museum of Department of Zoology (ZL-AR-CR-35), The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India.

Cryptopodia angulata H. Milne Edwards and Lucas, 1841

One adult female (CL 52.76 mm, CW 32.30 mm) was collected from trawl catch at 25–27 m depth near Sutrapada village 20°49'53" N, 70°29'17" E on Saurashtra coast of Gujarat state. The specimen was collected by Jignesh Kumar Trivedi in 23.i. 2012 (ZL-AR-CR-35).

The species has wide distribution including Maldives, Sri Lanka, Singapore, Australia and Gulf of Thailand. In India the species is recorded from west coast (Alcock 1895; Chhapgar 1957) and south east coast (Ravichandran *et al.* 2010). Carapace is broader than long, pentagonal and convex in shape, the edges of the carapace are dentate and harbors curved spine at all angles, the lateral margins of the carapace are large and conceal the abdomen and ambulatory legs beneath it, the shape of the teeth range from simple to bifurcate. Two spines are observed at the centre of the posterior margin of the carapace, second spine is present in front of both the anterolateral spines, the dorsal surface of carapace is granulated while ventral surface is smooth, deep triangular depression is observed at the centre of the carapace and branchial, cardiac and gastric regions are elevated, the margins of the triangular depression are granulated and ridges of the granules start from the apex of the triangular shape and end at the base of the rostrum on either side, orbits and eyes are small and round, the surface of the third maxillipeds is smooth.

Chelipeds are granular and robust, palm contains denticules in anterior and posterior margins, five prominent teeth are present on the anterior margin of palm, the carpus of the chelipeds is semi globular, merus is flat and harbors wing like expansions at the distal end with denticulate pattern on upper and lower margins, fingers are short and smooth.

Ambulatory legs are slender and smooth, the first pair of legs is longest, the upper margin of the merus is denticulate while lower margin is crenate, and dactylus is strongly crenate on both margins (Figures 1 and 2).

Cryptopodia angulata is not common in Indian waters. The species mostly prefer bottoms of sand and broken shells within the depth of 25 to 30 m (Chhapgar 1957). The species was first recorded by Alcock (1895) from Orissa and Malabar Coast of India . Chopra (1935) has recorded the species from Sandheds, West Bengal, while Chhapgar (1957) has reported the species from Gulf of Kutch, Gujarat. Except these records Banu and Nurul-Huda (1987) and Tirmizi and Kazmi (1983) have recorded the species from Karachi, Pakistan and Penang, Malasia, respectively. Recently Fatemi *et al.* 2012 and Ravichandran *et al.* (2010)

have reported the species from Oman Sea and Calimere coastal region of South east coast of India, respectively. Although, *Cryptopodia angulata* and *Cryptopodia echinosa* are very similar morphologically certain distinctive characters have been described: the carapace is more triangular in shape and the degree of granulation on its surface is high in *Cryptopodia echinosa* while the carapace of *Cryptopodia angulata* is more pentagonal in shape, the branchial, gastric and cardiac regions are strongly inflated and gastric region is more deeper in *Cryptopodia echinosa* than in *Cryptopodia angulata* (Chiong and Ng 1998; Fatemi *et al.* 2012).

Figure 1. *Cryptopodia angulata* Ventral view (ZL-AR-CR-35).

Figure 2. *Cryptopodia angulata* Dorsal view (ZL-AR-CR-35).

The present record of *Cryptopodia angulata* is the first report from Saurashtra coast, Gujarat, India. The brachyuran fauna of this particular area is not studied well and present study is part of the exploration.

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